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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,651

07/27/2004

Riccardo Defilla

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EXAMINER

COLLINS, TIMOTHY D

ART UNIT

PAPER NUMBER

3643

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/710,651

Applicant(s)

DEFILLA ET AL.

Examiner

Timothy D. Collins

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-18, 20-38, 41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-18, 20-38, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-12, 14-18, 20-38, and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu (US 6056239), and further in view of Ballard (US 3667075).

With respect to claims 1, 25, 33, 36, Cantu teaches a crew rest support system (fig 2) for use on an aircraft (abstract) comprising a berth enclosure (20), a berth mattress (30) and support structures. What Cantu doesn't teach is a pneumatic system and related inflatable members or support structure to adjust the mattress position. Ballard teaches a pneumatic system (abstract and fig 1-10), an inflatable member (12b,c,d) which articulates, a support structure (bellows 12a) and at least one pump actuating said inflatable member (air supply 37). Therefore, it would have been obvious

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to one skilled in the art at the time of invention to combine Cantu and Ballard to create an aircraft sleeping accommodations in which the mattress/cushions are adjusted pneumatically. This would be done for the purpose of providing a more adjustable mattress/seating accommodation. Therefore the device of Cantu in view of Ballard would be a vehicle set up like Cantu with a bed/seat of Ballard in place of the one of Cantu. The mattress of Ballard is seen to have a plurality of mattress segments as seen in the figures in that there are at least 3 segments of a top part or head part (near number 10a), a middle segment or mid body part (near number 10b) and also a foot section or segment as seen to the right of number 10d in figure 4. Also as seen in the Ballard reference the support structure 12a, is seen to have joints in that there are the indentations of the bellows of 12 and 12a which are considered to be joints.

With respect to claim 2, berth mattress is a pad or cushion as seen in the figures.

With respect to claims 3-6, berth mattress is cocoon shaped (elongated with corners as seen in figure 1 of Ballard) and ergonomic (see fig 4 of Ballard, molded to accommodate head, torso and legs), and the headrest is adjustable as seen in that the section of the device to the left accommodates the users head.

With respect to claim 7, wherein the headrest is adjusted pneumatically, see above with respect to claim 1 and 6.

With respect to claim 8, mattress comprises a plurality of mattress segments (fig 4 of Ballard, head, torso, seat, leg segments).

With respect to claim 9, wherein support structure comprises a frame (Ballard 11).

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With respect to claim 10, wherein support structure is a weaved material. While Ballard is silent as towards the material used, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a weaved material for the bellows, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claim 11, wherein inflatable member comprises an air bag (Ballard, 12b,d,c).

With respect to claim 12, said air bag (Ballard, 12b,d,c) is pleated (fig 1,4,3).

With respect to claim 14-16, wherein inflatable member comprises a first inflatable member to accommodate a first portion (Ballard, 12c foot) and a second member supporting a second portion (Ballard, 12b lower head support).

With respect to claims 17 and 18, wherein second inflatable member articulates a plurality of joints (inflatable member 12, consists of several pockets capable of independent inflation to articulate in various ways, 12b-e) through use of the pump (Ballard, 37).

With respect to claim 20, armrest (14c of Ballard, because ones arm may rest on this device).

With respect to claim 24, wherein support structure contains a fixed joint (Ballard, 15), and sliding joint (Ballard foot of mattress).

With respect to claim 26, retractable tray (53).

With respect to claim 27, 28, 37, controller for the pumps and bellows (Ballard, Fig 1, lower schematic), and locating said controller within the berth (Ballard, control located near the bed – control box 17).

With respect to claim 29, stowage area in the berth (51).

With respect to claim 30, berth divided into a first and second half (fig 2, top and bottom).

With respect to claim 31, first half contains first berth mattress and support system.

With respect to claim 32, second half contains second berth mattress and support system.

With respect to claim 34, access unit for accessing berthing compartments (left side of Cantu berths comprises an "access unit" by way passengers can climb into respective berths).

With respect to claim 35, wherein the enclosure contains 1st and 2nd (Cantu fig 2, top and bottom), ergonomic shaped berths (shaped around the human body).

With respect to claim 38, wherein the support member articulates to a plurality of orientations (Ballard fig 5, 7, 2, 4, 6, 3). See Rejections of claims 1,36,33 and 25. The mattress of Ballard is seen to have a plurality of mattress segments as seen in the figures in that there are at least 3 segments of a top part or head part (near number 10a), a middle segment or mid body part (near number 10b) and also a foot section or segment as seen to the right of number 10d in figure 4. Also as seen in the Ballard reference the support structure 12a, is seen to have joints in that there are the indentations of the bellows of 12 and 12a which are considered to be joints.

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With respect to claims 41 and 42, see Rejections of claims 1,36,33,25 and 38 above. The mattress of Ballard is seen to have a plurality of mattress segments as seen in the figures in that there are at least 3 segments of a top part or head part (near number 10a), a middle segment or mid body part (near number 10b) and also a foot section or segment as seen to the right of number 10d in figure 4. Also as seen in the Ballard reference the support structure 12a, is seen to have joints in that there are the indentations of the bellows of 12 and 12a which are considered to be joints.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu (US 6056239), in view of Ballard (US 3667075) and further in view of Le Gette (US 6698827). Cantu in view of Ballard teaches the invention as described above with respect to claim 1 and 20, but doesn't teach a deployable, flexible arm rest that articulates with the bending of the mattress. Le Gette teaches a flexible arm rest (40) that retracts and deploys with the articulation of the back with respect to the seat (33), the motivation being to create a light arm rest that is set up and stowed without intervention of the user while the seat and back are articulated with respect to one another. Therefore it would have been obvious to one skilled in the art at the time of invention to combine Le Gette with Cantu in view of Ballard to add a flexible deployable arm rest that articulates with a crew berthing unit.

Response to Arguments

1. Applicant's arguments with respect to claims 1-12,14-18,20-38, and 41-42 have been considered but are not persuasive.

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- a. Re applicant's argument regarding segments and joints, see above rejections.
- b. Re applicant's argument that articulation is not seen, it is noted that the examiner maintains articulation is seen in that the mattress moves in an articulated manor. **Also it is noted that the applicant should further claim that the mattress is articulated at the joints and that the joints accomplish the articulation.** If applicant specifies how the articulation takes place with the joints, the independent claims would be allowable over the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Collins whose telephone number is 571-272-6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy D. Collins
Primary Examiner
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